DOCUMENT RESUME

ED 286 833 SP 029 314

AUTHOR Diez, Mary E.
TITLE The Knowledge Base: Issues for Liberal Arts Colleges. AILACTE Occasional Paper No. 7.
INSTITUTION Association of Independent Liberal Arts Colleges for Teacher Education.
PUB DATE 87
NOTE 11p.
PUB TYPE Viewpoints (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Educational Research; Higher Education; Liberal Arts; Preservice Teacher Education; Private Colleges; *Teacher Effectiveness; *Teaching Experience

ABSTRACT

The phrase "the knowledge base" conveys the sense that there is one, monolithic set of information waiting to be codified and promulgated, probably available only through someone else's research. This paper argues that the knowledge base for teaching is continually being created and interpreted, especially by practitioners. The facts frequently are less important than the judgments made in specific situations, making the teacher a "situational decision maker." These two views have implications for teacher education in terms of what preservice teachers need to know and what combination of information and experience will prepare them for the next stage of development as teachers. Codification of the knowledge base for teaching can unify teacher educators if liberal arts colleges are involved in the process and can clarify and analyze what has been learned to distinguish the knowledge base as a complex web, instead of a file cabinet filled with "real" research. (MT)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED286833

The Knowledge Base: Issues for Liberal Arts Colleges

Mary E. Diez, Chair

Education Division

Alverno College

Milwaukee, Wisconsin 53215

AILACTE Occasional Paper No. 7

1987

Occasional papers of the Association of Independent Liberal Arts Colleges for Teacher Education are authorized by the Executive Committee of AILACTE and are edited by a member of that Committee. Points of view and opinions expressed in the occasional papers are those of the individual authors and not necessarily those of the Association. The contents of an occasional paper may be quoted or reproduced, provided the source is identified.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

DIEZ, M.E.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

SP029314

BEST COPY AVAILABLE

The Knowledge Base: Issues for Liberal Arts Colleges

In a 1984 conference on Teaching Thinking Skills sponsored by the Association for Supervision and Curriculum Development, Stuart Rankin addressed the assembled group of educators, confessing some uneasiness about the group's call to define what we meant by "thinking." He said, "I had this nightmare that Art Buchwald will write a column likening our group to a bunch of clergymen gathered to consider what they mean by morality."

The knowledge base discussions underway across the teacher education community give me a sense of deja vu--for again, we're grappling with something we all "know" in one sense (and certainly see as central to our endeavors), and yet have allowed to become a mystery that must be interpreted by others somehow privy to its secrets. I am not arguing that the knowledge base discussions (any more than the critical thinking discussions) are not worth our efforts. On the contrary, we need to address the substantive issue of what a teacher needs to know and be able to do if we are to establish ourselves as credible professionals.

Philip W. Jackson's (1987) review of the 3rd **Handbook of Research on Teaching: A Project of the American Educational Research Association** (1986) identifies two factors that come into play in our current context as teacher educators addressing this substantive issue. The first is what he calls an "optimism rooted in the contention that professionals now know a lot more about how to teach than was known before"(p. 507). The second is an optimism "triggered by new approaches to the study of teaching," what Jackson calls "new paradigm optimism"(p. 507). This paper will look at the interplay between these two factors or "optimisms" and will suggest potential implications for the liberal arts college as a setting for teacher education.

1. What is "knowledge" in the knowledge base as seen by the previously dominant and emerging paradigms?

My experience in sitting at meetings of teacher educators is that at some point someone will break into a discussion with this "stopper": "That may be your experience, but what does the research tell us?" Reliance on "objective" findings produced in formal research designs represent what has been the dominant paradigm in all of the social and behavioral sciences--a positivist, experimental approach to seeking generalized "truth." Because of the restrictions of the method, it tends to be narrow and compartmentalized.

The phrase "THE knowledge base," as used more and more in the discussion, may easily convey the sense that there is one, monolithic set of information out there waiting to be disco-

vered so that it can be codified and promulgated. And it's probably only available through the results of someone else's research. I've overstated the position; however, listen to people talk about the knowledge base and you will get a sense of one epistemological position in the discussion that sees a body of "facts" or "findings" that are objective and generally applicable, that are "tested" in a certain sort of empirical study, and that are offered to classroom teachers by those who are not, themselves, classroom teachers.

Anyone who has completed the beginning course in research design knows the limitations of such generalized truths. As Shulman (1987) points out, most researchers realize that their findings, especially when applied by policymakers, are simplified and incomplete--perhaps inappropriate to specific situations. Yet the basic stance of a positivist epistemology is the presumption that history repeats itself, that what is learned in a carefully controlled study can generalize to future events, whether in the same setting or not--and that variations across classrooms are simply "error variance." Shulman, Erickson and several other authors in the **Handbook** recognize the contributions of such studies but call call for awareness of the differences between and among different situations.

Shulman (1987, p. 7) argues that "the results of research on effective teaching, while valuable, are not the sole source of evidence on which to base a definition of the knowledge base of teaching. Those sources should be understood to be far richer and more extensive. Indeed, properly understood, the actual and potential sources for a knowledge base are so plentiful that our question should not be, Is there really much one needs to know in order to teach? Rather, it should express our wonder at how the extensive knowledge of teaching can be learned at all during the brief period allotted to teacher preparation."

Based on what Erickson (1986, p. 130) describes as the need to see effective teaching "as occurring in the particular and concrete circumstances of the practice of a specific teacher with a specific set of students 'this year,' 'this day,' and 'this moment,'" the new paradigm recognizes the need for richer and more extensive sources--knowledge bases if you will. In this position, one of the most important bases is experience, constantly being integrated into the knowledge base from which the teacher operates.

This epistemological position, rooted in anthropology and symbolic interactionism (see Erickson, 1986, for an excellent discussion of its development) holds that our knowledge base for teaching is continually being created and interpreted, especially by practitioners--one that is modified by particular situations, specific disciplines, and individual styles. Listen to people talk about the knowledge base in this way and it's a more fluid thing--with the reflexivity of knowing

informed by doing informed by knowing. The "facts" in this position are less fixed, generally less important than the judgments made in specific situations. Bolster (1983) makes this point in his definition of the teacher as a "situational decision maker."

What we need, I believe, is a conceptualization of the complex inter-relationships of the knowledge bases at work in the preparation of an effective teacher. This conceptualization must take into account the subject area knowledge and understanding, the practical awareness of developmental frameworks and pedagogical approaches, as well as a sense of questioning and reflection that can be drawn from a grounding in the liberal arts. That's hard to do in a set of discrete chapters; yet it creates a different sense of what we may mean by "the knowledge base." The metaphorical picture is that of a file cabinet with discrete entries versus a web of interrelated strands that mutually support and connect with each other. For this more complex "web," the new paradigm is clearly better suited.

2. What are the implications for teacher preparation programs each of the two epistemological positions or paradigms?

Modes of college teaching, curriculum development, and testing are imbedded in the paradigms described above. The dominant mode, based in a belief in generalizable truths that are discovered "out there," leads to an "information dissemination" mode of teaching. Curriculum is determined by asking what does the prospective teacher need to learn about (i.e., be told about); courses, then, are organized by topics. And testing is most appropriately information focused, with the item as the unit of analysis.

The emerging paradigm will lead us, I believe, to teaching, curriculum, and testing designed with a focus on the development of the prospective teacher. This does not need to imply the absence of "content" learning; however, it requires the integration of what the learner need to know and be able to do with what he/she knows. It would require a curriculum developed with all the courses designed with the total picture in mind; with a description not only of what content would be "covered" (interesting metaphor, when you consider putting an opaque surface over content) but of what the learner would be able to do with it. The college faculty member's teaching style must be more interactive, facilitating the integration of content and application. And testing would assess the degree to which the learner can perform, using the knowledge base elements developed in the course, making the learner's performance the unit of analysis.

The contrast between the two epistemological positions is often revealed subtly in the language we use to talk about the knowledge base in relationship to curriculum. At an AACTE conference held this summer at Wingspread (Building a Communi-

ty of Shared Interest, sponsored by AACTE and the Johnson Foundation), Willis Hawley presented a series of propositions relating to the development of effective teacher education programs. Two focused on students' need to learn about varied teaching strategies. The "about" is at the heart of the differences in epistemology about knowledge base questions. The group agreed that many students who have had coursework that has told them "about" classroom management would not be able to say that it prepared them for the challenges of actually managing a classroom. The problem with "about" may be that it allows us to separate "learning that" from "learning how and when." Students preparing to be teachers need both the knowing and the doing, the theory and the practice, for their "knowledge" to provide the "base" for effective teaching.

For beginning teacher preparation, it is not simply "knowing that" which we need to provide. The character of that knowing must lead to specific outcomes that both test the knowing and shape its application to teaching. The increasing stress on pre-student teaching field work in teacher education is one indication that this awareness is beginning to shape our approaches to teacher education.

Here's a test of the knowledge base: If we were able to assess whether a person were ready to go into the classroom (as a teacher we could stand behind) on the basis of what he/she knows and has demonstrated he/she is able to do.

At Wingspread, there was much concern about the Texas legislation limiting professional teacher education coursework to 18 semester hours--for either elementary or secondary education. It seems to me that for some persons, the knowledge/practice on which to base successful teaching can be acquired outside of a teacher education program. I submit that those persons would be rare; however, it's possible. It seems to me that 18 semester hours might be enough for other persons (of course, depending upon what happens in those 18 hours). But I am equally sure that other persons would require 36 or 45 hours.

But until we are able to say what the person needs to know and be able to do, we are not in a position to argue for 18 or 36 or 54 semester hours, or for 4 or 5 or 6 years. This is the essential question that needs to undergird the teaching, curriculum, and testing decisions.

3. What implications do the two epistemological positions or paradigms have for the development of teachers?

There is no clear agreement in the teacher education academy about what a pre-service teacher needs to know and be able to do in order to be "ready" to teach. Recent state legislation has made it no simpler--from states like Texas reducing the possible hours devoted to preparation, to states like Wisconsin increasing the required hours.

At the heart of the discussion, but not really recognized, are the two epistemological views once more. Again, at Wingspread, there was the kind of discussion that assumes that the preparation is a body of knowledge to which preservice teachers need to be "exposed" (note the language again) or learn "about" coupled with the concern that the "amount" of knowledge is growing rapidly and will make it even more difficult to complete the program in four or even five years. But there was also the kind of discussion that calls for a more developmental view of the process, i.e., a process not finished with the initial certification of a beginning teacher.

In my department's work with cooperating teachers from the area schools (those who work with our students in pre-student teaching field work and student teaching), we begin the seminar with an audio-taped teaching story exercise, asking each person to talk in a small group about a time when she/he felt successful about what happened with their students. One that stands out in my mind concerns a kindergarten teacher in her third year of teaching faced with a class who did not fit the patterns that she had been taught to expect--they simply did not have the social and intellectual skills that the knowledge base of developmental psychology and her own prior experience led her to expect. She describes her decision to totally revamp her plans, meeting the children where they were, and finding ways to bring them to the developmental point they needed to reach to be ready for Kindergarten work. Her final sentence tells about her principal's response to her work: "He told me that that's the year I really became a teacher."

Our task, it seems to me, in working with the knowledge base issue, is to determine what combination of information and hands on experience will prepare our teacher education candidates to be ready for the next stage of <u>development</u> that can only come through actual practice in the profession. For them to be able to learn from their experience, we have to build experiential learning into our own preparation programs. Again, at Wingspread, we had discussions about the importance of problem solving as an outcome for teacher education candidates. Those tied to the previously dominant paradigm had difficulty with this idea, asking "How will the students know for sure if their solution is a good one before they try it?" For those whose thinking comes out of the emerging paradigm, the need for problem solving as a skill is but one aspect of the ability to meet each situation as it presents itself and make judgments about what needs to be done. The reflection that follows (and leads to new decisions) is far more important than the prediction of success called for by the old paradigm.

Fenstermacher (1986) makes this point in his **Handbook** entry, arguing for the dual requirement of performing skillfully and reasoning soundly about one's own teaching practice.

4. If we agree that an ongoing, agreed upon picture of the knowledge base is needed in teacher education, who should codify it?

I believe that this is an issue of great importance to liberal arts colleges involved in teacher education. We must involve ourselves in the process or accept the kind of disenfranchisement that will result.

There are those who believe that the "real" researchers in the large universities, where "knowledge production" is a focus, are the only candidates for the task. Of course they should have input; their contributions to the research on teaching literature about teaching merit them a place. But I would suggest that there be one added requirement: that in their own teaching they implement what they have found in their research. A friend of mine recently told of a discussion with a researcher on the plane ride home from a convention. His work focused on the positive impact on learning of having students work in groups; most of his research was carried out in a laboratory setting, with student subjects. She asked him what impact his findings had on his own classes--did he provide for group work there? He seemed horrified that she would suggest such a thing--no, of course not, he had continued to lecture as usual (as befits the information dissemination school of thought about teaching). The irony is that he did not seem bothered by the lack of congruence between his findings and his practice.

Shulman (1987, p. 8) talks about four major sources for the teaching knowledge base:

> (1) scholarship in content disciplines, (2) materials and settings of the institutionalized educational process (for example, curricula, textbooks, school organizations and finance, and the structure of the teaching profession), (3) research on schooling, social organizations, human learning, teaching and development, and the other social and cultural phenomena that affect what teachers can do, and (4) the wisdom of practice itself.

Teacher educators in the liberal arts college setting have something to offer in all of these areas. Our own practice as teacher-researchers in settings where the primary focus of the institution is teaching has given us the opportunity to develop an understanding of the processes of the teacher, reflectively probing our own practice as a resource for our students. What we have not done, by and large, is make that reflection explicit in ways that can be shared with the profession as a whole. We need to begin to make public our processes, insights, and findings so that we can further clarify and analyze what we have learned about the practice of teaching. (For additional discussion of the notion of teaching as research, see Duckworth, 1986.)

Because, in many cases our enrollments are smaller than those

of the larger universities, we have the opportunity to connect in a different kind of way with our cooperating teachers. Their experiences, as practitioners in elementary and secondary classrooms, is another source of the knowledge base we offer to our students. It is a source that we need to make available in new ways--again both for our students and for the profession as a whole.

Let me give you an example of how this might work. During the period of low enrollments in education (the mid to late 70's and early 80's), Alverno College began a study group including persons from education and other disciplines (all who identified themselves as teachers in this institution where teaching is our primary focus). The goal of the group was to identify the developmental picture of the abilities of the teacher (whether elementary, secondary, or college). After five years we had descriptive maps of beginning, developing, and advanced abilities, organized under five large headings: Conceptualization, Diagnosis, Coordination, Communication, and Interaction. In the last four years, we've used the maps to restructure the teacher education curriculum, focusing it on the development of these abilities within in the context of content learning. Interviews with teachers in the elementary and secondary schools, as well as with our own colleagues across the college disciplines, have provided us with descriptions of these abilities in action. What this has helped us to do is to provide our students with concrete and specific examples of how teachers draw upon the knowledge bases they use and to give them models for reflection on their own practice, elicited in field work and student teaching through the use of reflective logs.

Shulman (1987, p.15) says that "the key to distinguishing the knowledge base of teaching lies at the intersection of content and pedagogy, in the capacity of a teacher to transform the content knowledge he or she possesses into forms that are pedagogically powerful and yet adaptive to the variations in ability and background presented by the students." Prospective teachers may need to begin with the pieces of the process as discrete aspects of the knowledge base, but what Shulman suggests here is that at some point we must find a way to assist them to see the inter-relationships among the varied aspects that create the "web" of the more complex notion of the knowledge base.

5. Will the codification of the knowledge base for teacher education unify us?

This was one of the questions raised at Wingspread by AACTE President Bill Gardner. I hope that the answer can be yes. It will be if, through a rich dialog, we come to an ever-deepening understanding of what it means to be a teacher. It will be if we enter into the dialog as equal partners, presenting our experience as teacher-researchers as a valid contribution to the understanding. It will be if there is mutual

respect among all parties--with no paradigm's followers dismissing the valid contributions of other paradigms.

The challenge for us, the liberal arts colleges involved in teacher education, is to accept the responsibility to be more than passive observers of the creation of the knowledge base. What I want to suggest in this paper, however, is that we need to de-mystify the concept of "knowledge base" and take responsibility for our own ongoing development of the understanding of the complex act of teaching.

Reference List

Bolster, Arthur S., Jr. (1983). Toward a more effective model of research on teaching, Harvard Educational Review, 53 (3), 294-308.

Diez, Mary E. and Lake, Kathy. (1987) Teachers talk about teaching: Developing the abilities of the teacher. Departmental paper, Education Department, Alverno College.

Duckworth, Eleanor (1986) Teaching as research. Harvard Educational Review, 56 (4), 481-495.

Erickson, Frederick (1986) Qualitative methods in research on teaching. In M. Wittrock (Ed), Handbook of research on teaching: A project of the American Educational Research Association (3rd ed., pp. 119-161). New York: Macmillan.

Fensternacher, Gary D. (1986) Philosophy of research on teaching: three aspects. In M. Wittrock (Ed), Handbook of research on teaching: A project of the American Educational Research Association (3rd ed., pp. 37-49). New York: Macmillan.

Jackson, Philip W. (1987) Research on teaching: Quo vadis? Contemporary Psychology, 32 (6), 506-508.

Shulman, Lee S. (1987) Knowledge and teaching: Foundations of the new reform. Harvard Educational Review, 57 (1), 1-22.

Shulman, Lee S. (1986). Paradigms and research programs in the study of teaching: A contemporary perspective. In M. Wittrock (Ed.) Handbook of research on teaching: A project of the American Educational Research Association (3rd ed., pp. 3-36). New York: Macmillan.